

WHAT IS CLAIMED IS:

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A method of tracking a resolved signal, the method comprising:

- 5 determining a first value representative of an energy of the signal at a first instant before a presumed occurrence of a local optimum of the energy of the signal;
 determining a second value representative of the energy at a second instant after the presumed occurrence of
10 the local optimum;

 calculating a first product of a first integer and the first value and calculating a second product of a second integer and the second value, with the first integer smaller than the second integer;

- 15 generating a first logical value from a comparison between the first and the second products;

 calculating a third product from a third integer and the first value and calculating a fourth product from a fourth integer and the second value, with the third integer smaller than the fourth integer;

- 20 generating a second logical value from a comparison between the third and the fourth products; and,

- generating a detector output signal from a difference between the first logical value and the second logical
25 value.

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The method of Claim 1, wherein the first and the second instants are symmetrical in relation to the presumed occurrence of the optimum.

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3. The method of Claim 1, wherein the first integer is equal to the third integer and the second integer is equal to the fourth integer.

5 4. A rake receiver comprising:

a rake finger to perform an early-late detection on a signal, the rake finger comprising:

a first energy estimator determining a first value of an energy of the signal at a first instant before a presumed
10 occurrence of a local optimum of the energy of the signal;

a second energy estimator determining a second value of the energy at a second instant after the presumed occurrence of the optimum;

a calculating arrangement calculating:

15 a first product of a first integer and the first value,

a second product of a second integer and the second value, with the first integer smaller than the second integer,

20 a third product of a third integer and the first value,

a fourth product of a fourth integer and the second value, with the third integer smaller than the third integer;

25 a logical comparator determining a first logical value from a comparison between the first and the second products and determining a second logical value from a comparison between the third and the fourth products; and

30 an early-late detector generating a detector output signal from a difference between the first and second logical values received from the comparator.

5. A computer readable medium for storing instructions to carry out a method comprising:

determining a first value representative of an energy of the signal at a first instant before a presumed

5 occurrence of a local optimum of the energy of the signal;

determining a second value representative of the energy at a second instant after the presumed occurrence of the local optimum;

calculating a first product of a first integer and the
10 first value and calculating a second product of a second integer and the second value, with the first integer smaller than the second integer; *and*

generating a first detector output signal from a comparison between the first and the second products.

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